includes an extracellular binding domain joined to a transmembrane domain that triggers an immune effector response in the absence of an intracellular signalling domain, and the second receptor includes an extracellular binding domain joined to a CD28 intracellular portion.

Claim 44 has been amended to correct a typographical error introduced in Applicants' previous reply. As currently amended, the claim is directed to a cell having, as one of its components, a receptor possessing a transmembrane domain that signals in the absence of an intracellular (rather than an extracellular) signalling moiety.

In addition, new claim 101 has been added. This claim finds support throughout the specification, for example, at pages 9 and 48, and in claim 44.

Rejection under 35 U.S.C. § 112, first paragraph

Only one issue remains in this case — whether the specification provides support for Applicants' claimed chimeric receptors having a transmembrane signalling domain and "(c) an intracellular domain that does not signal target cell or target infective agent destruction." In response to this § 112 rejection, Applicants direct the Examiner to the specification, for example, at page 9, lines 16-28. There, Applicants specify that the chimeric immune receptors of the invention may include a transmembrane signalling domain derived from a T cell receptor, Fc receptor, or B cell receptor protein. In addition, at page 48, Applicants specifically describe a transmembrane signalling receptor

of the sort currently claimed. In particular, at lines 20-33, Applicants detail the construction of a number of chimeras having intracellular domains of reduced length. One such chimera, disclosed at lines 31-33 and in Figure 8A, possessed an intracellular domain of only three amino acid residues. This intracellular nub would not act as a signalling domain, instead functioning only as a "transmembrane anchor" that helped to hold the chimera in the cell membrane. As demonstrated in Figure 8B, this receptor, which lacked an intracellular signalling domain, was nonetheless able to signal target cell destruction through the transmembrane domain when expressed in cytotoxic T lymphocytes.

In view of this description of the very type of chimeric receptor covered by the present claims, this rejection may be withdrawn.

Information Disclosure Statement

Applicants draw the Examiner's attention to the Information Disclosure Statement mailed September 18, 2000 and request that the Form PTO-1449 submitted with that Statement be initialed and returned with the next action.

Conclusion

Applicants submit that this case is now in condition for allowance, and such action is respectfully requested.

Enclosed is a petition to extend the period for replying for three months, to and including February 1, 2001. If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: 31 January 2001

Karen L. Elbing, Ph.D.
Reg. No. 35,238

Clark & Elbing LLP
176 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045

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